

REMARKS

This Amendment is filed in response to the Office Action dated November 27, 2006, which has a shortened statutory period set to expire February 27, 2007.

Overview of the Prior Art and the Invention

A conventional prior art system can include multiple static timing analysis (STA) tools that use various set-ups for modes and corners. See, e.g. Figure 1B, tools 100A, 100B, and 100C. Notably, as taught by Applicant in the Specification, paragraphs [0006-0007] and referring to Figure 1B:

As STA tools 102A-102C complete their analysis, user 112 can review the results of the static timing analysis and perform debugging 113, as necessary, to mitigate timing violations. Of importance, user 112 must manually perform this user analysis/debugging 113 on results 103A-103C. Unfortunately, results 103A-103C typically form large, complex files in which each critical path in the design must be individually extracted for path profiling. Moreover, performing a comprehensive static timing analysis using available modes and corners can take many runs, e.g. 100-200 runs. Therefore, managing and/or merging the results from these runs can be very complex and time consuming.

Therefore, a need arises for a system and method of efficiently managing multiple static timing analysis runs using multiple modes/corners.

In contrast, Applicant provides an STA system and method that can manage multiple runs having different parameters and automatically merge the results from those runs. Specification, paragraph [0009]. Parameters can include, for example, modes and corners. Specification, paragraph [0009]. Exemplary modes can include a test mode, a normal operation mode, and a power-down mode, whereas exemplary corners can include process parameters including minimum/maximum temperatures as well as minimum/maximum voltages. Specification, paragraph [0009]. By

merging the results of such processing and extracting desired information at various levels of detail, a user can quickly and intelligently make decisions in debugging a design. Specification, paragraph [0017].

Claims 1-11, 14-38, And 41-43 Are Patentable Over Schulz

Claim 1 recites merging the results from multiple STA runs, wherein each run uses a predetermined set of parameters. Applicant respectfully submits that Schulz fails to teach merging of the results. The Office Action cites paragraph 2, section "A look under the hood" as teaching this limitation. Applicant traverses this characterization. The last sentence of this paragraph explicitly states, "Reports and various visualization tools can then provide results sorted according to user preferences." Nothing in this paragraph suggests that these reports/results are merged. Indeed, it would appear that Schulz merely teaches the prior art taught by Applicant in Figure 1B.

In contrast, merging of the results as recited in Claim 1 advantageously allows a user to quickly and intelligently make decisions in debugging a design. Because Schulz fails to disclose or suggest this merging, Applicant requests reconsideration and withdrawal of the rejection of Claim 1.

Claims 2-19 depend from Claim 1 and therefore are patentable for at least the reasons presented for Claim 1. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 2-19.

Claim 20 recites a set of automatically merged results generated by a plurality of STA runs. Therefore, Claim 20 is patentable for substantially the same reasons presented for Claim 1. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claim 20.

Claims 21-24 depend from Claim 20 and therefore are patentable for at least the reasons presented for Claim 20. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 21-24.

Claim 25 recites a third set of instructions for automatically merging the results of multiple STA runs, each run using a predetermined set of parameters. Therefore, Claim 25 is patentable for substantially the same reasons presented for Claim 1. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claim 25.

Claims 26-33 depend from Claim 25 and therefore are patentable for at least the reasons presented for Claim 25. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 26-33.

Claim 34 recites saving the results from each STA run to external storage and reporting the saved results. Applicant respectfully submits that Schulz fails to teach the recited saving and reporting of the results. The Office Action cites paragraph 2, section "A look under the hood" as teaching this limitation. Applicant traverses this characterization. The last sentence of this paragraph explicitly states, "Reports and various visualization tools can then provide results sorted according to user preferences." Nothing in this paragraph suggests that these reports/results are saved to external storage and then reported. Because Schulz fails to disclose or suggest saving STA results to external storage and then reporting these results, Applicant requests reconsideration and withdrawal of the rejection of Claim 34.

Claims 35-43 depend from Claim 34 and therefore are patentable for at least the reasons presented for Claim 34. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 35-43.

Claims 25-33 Are Definite And Directed To Statutory Subject Matter

Claim 25, as amended, now recites, a "computer-readable medium comprising instructions, that when executed by a processor, provide instructions for generating merged results from multiple static timing analysis runs". Therefore, based on this clarification, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 25.

Claims 26-33 (all amended to refer to a computer-readable medium) depend from Claim 25 and therefore are patentable for at least the reasons presented for Claim 25. Based on those reasons, Applicant requests reconsideration and withdrawal of the rejection of Claims 26-33

CONCLUSION

Claims 1-43 are pending in the present application.
Allowance of these claims is respectfully requested.

If there are any questions, please telephone the
undersigned at 408-451-5907 to expedite prosecution of this
case.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jeanette S. Harms', with a long horizontal flourish extending to the right.

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